

A Semiconductor Patent Survey

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I. What should Intel be patenting?

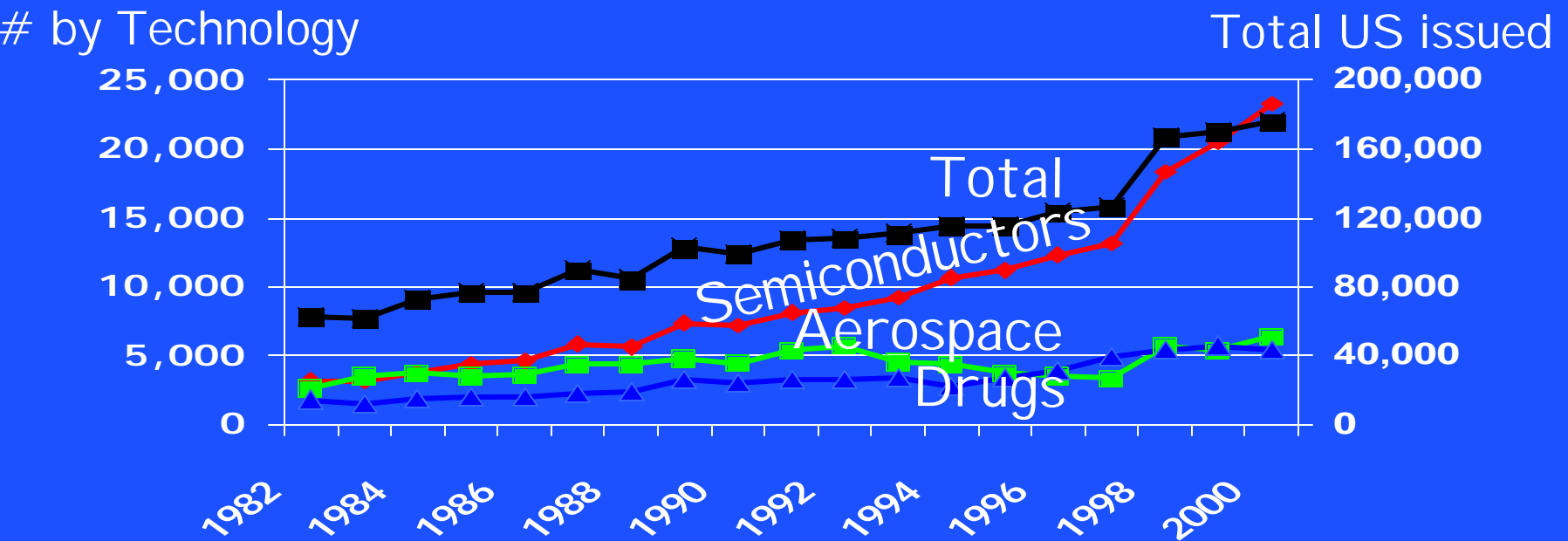
Patent Filing Criteria

- Patentability
- Related to current or future business
- Significant improvement over current design/method
- Ease of design-around
- Ease of detection
 - Related to competitors' business?
 - Who would infringe? Able to police?
 - Will it be obsolete by the time the patent issues?
- Otherwise, maintain as trade secret

How many patents is enough?

- Omniscience desired, but not practical
- Cost a significant factor
 - Quantity vs. Quality trade-off
- Intel: app. 5,500 patents total (U.S.)
 - covers all sorts of technology, not just semiconductors
 - Add'l 1,000 foreign
 - App. 950 issued in '01

The “Patent Thicket”



- Recent ramp in semi filings, outpacing other industries
 - ~90K CPU patents, held by >10K parties
 - ~420K semi / system patents, held by >40K parties
 - Design houses proliferating (Rambus, ARM, Qualcomm)

Conclusion: Unavoidable overlap of IP

II. What to do with these patents?

3 Choices

- License
- Litigate
- Do Nothing
 - equivalent to RF cross-license
 - MAD?

Licensing Considerations

- What do they have on us?
- What do we have on them?
- Who cares?
- Note: Moore's law as important as civil law

“Patent Thicket” => 30 yr. History of x-licenses

Is Conventional Wisdom right?

- CW: Big companies with big portfolios x-license each other, to the detriment of new entrants
- But...asymmetry of risk
 - Only need a few patents to put a large amount of revenue at risk
 - start-up happy to trade x% of revenue with IBM
- Result: Large companies tend to use portfolio more to generate revenue, not exclude competition
 - E.g., TI, IBM, Lucent

Trolls: A Looming Problem

- Lots of IP available from distressed companies
 - Many entities exist for sole purpose of acquiring and asserting (e.g. Techsearch)
 - No threat of counterclaim
 - Ultimate asymmetry of risk
- \$xB claims against Intel
 - Plus an injunction (!!!)
- Legislative relief required